Executive Summary
2010 Urban Water Management Plan
Inland Empire Utilities Agency

The Inland Empire Utilities Agency (IEUA) prepared the 2010 Urban Water Management Plan (UWMP) to comply with Urban Water Management Planning Act. This Plan updates the last Urban Water Management Plan submitted in 2005. It provides an overview of current and projected water supplies and demands over the next twenty-five years, a description of the water conservation and water management activities that are planned and addresses the topics of reliability, water quality and opportunities to maximize local water sources, including conservation, groundwater and recycled water, and to minimize the need for additional imported water supplies within IEUA's service area.

The IEUA 2010 UWMP was prepared in close coordination with the retail agencies within IEUA's service area as well as with the Metropolitan Water District of Southern California (MWD), Santa Ana Watershed Project Authority, Chino Basin Watermaster, Water Facilities Authority, the Chino Basin Desalter Authority and other cities and agencies within the watershed. The water demand and supply information was based upon projections provided by the area's retail agencies, Chino Basin Watermaster and MWD. Companion 2010 UWMP's were also prepared for the Water Facilities Authority and the Chino Basin Desalter Authority and are included as appendices.

IEUA is a municipal water agency that delivers supplementary imported and recycled water within its service area as well as provides regional wastewater treatment services with domestic and industrial disposal systems and energy/production and composting facilities. IEUA's service area covers 242 square miles in the southwestern corner of San Bernardino County and currently serves a population of about 850,000. IEUA provides services to the cities of Chino, Chino Hills, Fontana, Montclair, Ontario, Rancho Cucamonga, and Upland as well as the Monte Vista and Cucamonga Valley Water Districts, the Fontana Water Company and the San Antonio Water Company.

Implementation of the IEUA 2005 Urban Water Management Plan

As predicted in the 2005 UWMP, significant population growth and new development has occurred within IEUA's service area over the past five years. Population in the service area was about 790,000 in 2005 and has grown to approximately 850,000 in 2010.

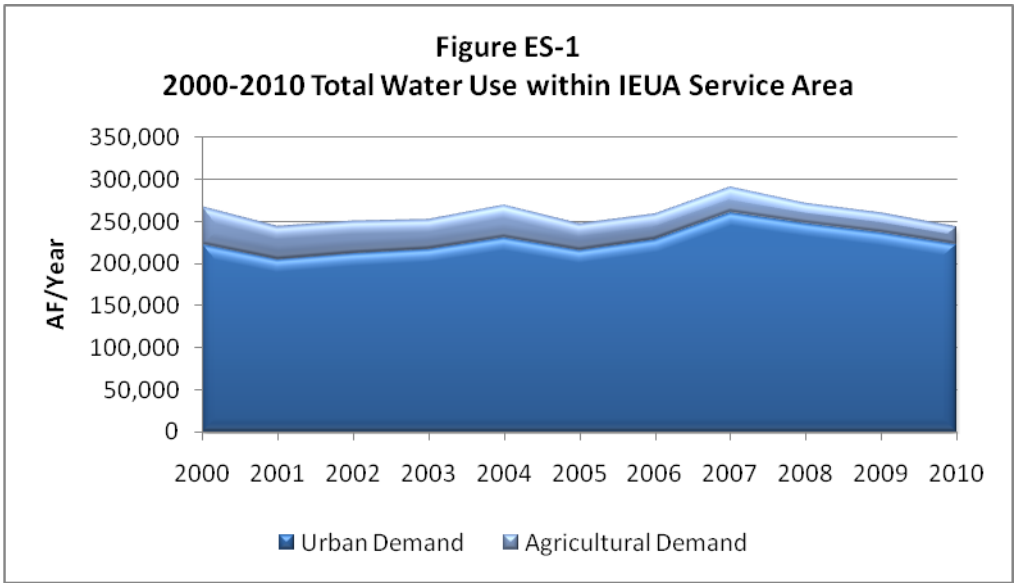
During this time IEUA, in partnership with the communities it serves, implemented its integrated regional strategy for diversifying local water supplies. As a result, local water supplies have been greatly expanded. By 2010, the regional strategy had resulted in:

- Increased conservation through water use efficiency programs;
- Tripled direct reuse of recycled water;
- Tripled groundwater production through desalting facilities;
- Development and implementation of an award winning Groundwater Recharge/Recovery Program using local storm water and recycled water to supplement the use of imported water for replenishment;
- Implementation of a "Dry Year Yield" Program (33,000 AF of new supply); and
- Developed and implemented a Drought Allocation Plan

Water Demand

Total water demand in the IEUA service area in 2010 was about 244,000 acre-feet. Despite the increase in population, the overall trend in the area's water demand in the past ten years has essentially flat-lined (Figure ES-1). In the 2007 total water demand peaked at about 290,000 acre-feet, however, in the last three years water demand has decreased. The continuing downward trend in overall water use is an excellent indicator of how well the IEUA member agencies have responded to the current water supply challenges including; a third consecutive year of drought, MWD's call for stored water under the Chino Basin Dry Year Yield Program; Judge Wanger's Delta Decision which significantly restricted diversions from the delta, the Governor's declaration of a Statewide Water Emergency, MWD's adoption of a Water Supply Allocation Plan and its call for both voluntary conservation and implementation of mandatory water conservation ordinances (see Chapter 2 for details).

Figure ES-1
2000-2010 Total Water Use within IEUA Service Area

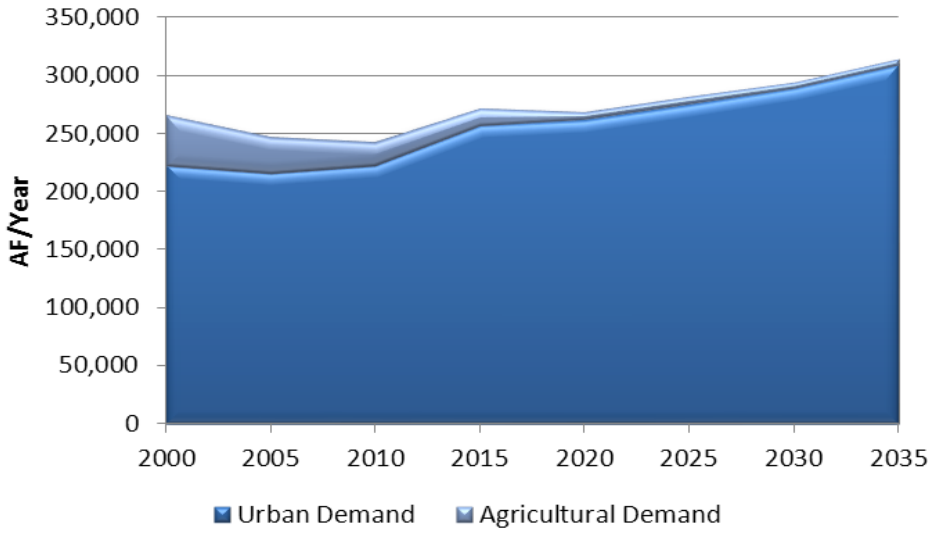


Despite the flat-lined water use trend over the past ten years, the annual demand within the area has fluctuated with dry and wet year cycles. The early 1990's were characterized by an intense drought (1988-1992) that sharply increased demand and

then, as a result of the region's conservation efforts, decreased the area's water usage. Similarly, dry conditions prevailed between 2007 and 2010, fiscal year 2007 being a record-breaking dry year for California with the Agency's service area receiving less than 5 inches of rain – far below the 15-inch average rainfall for the region, and the region saw a short sharp increase in demand followed by a longer lasting decrease in demand.

Looking ahead, population within IEUA service area is expected to reach approximately 1.2 million people by 2035. Total future water demand (which includes agricultural production) within IEUA's service area over the next twenty-five years is expected to increase by approximately 70,000 acre-feet (from 244,000 acre-feet to about 314,000 acre feet per year, see Figure ES-2). This represents a potential 30% increase in the area's projected water demands. With the conversion of agricultural land to urban uses over the next twenty-five years, the percentage of water used in the area to meet urban demand will increase while the share of water used for agricultural purposes will decline. By 2035, urban water use is expected to be 98.5% of the water demand (about 309,000 acre-feet), while agriculture will use less than 1.5% (about 5,000 acre-feet).

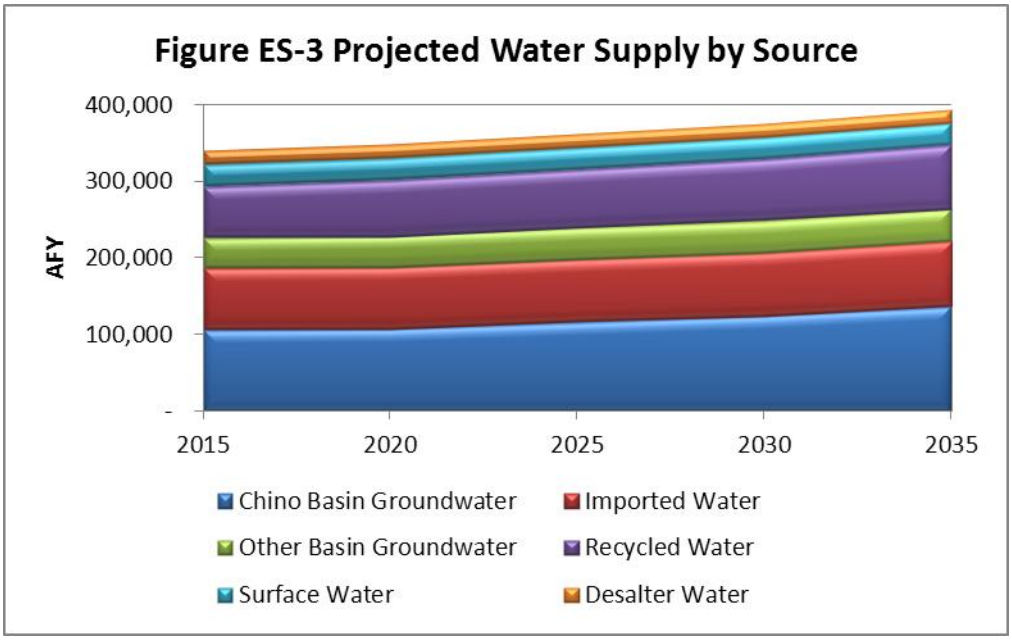
Figure ES-2
2000-2035 Total Water Use within IEUA Service Area



Water Supplies

The regional water management strategy within IEUA's service area is to maximize the use of local water supplies and minimize the need for additional imported water, especially during dry years and other emergencies when imported water is less reliable. In 2010, local water supplies, including groundwater, recycled water, surface supplies and conservation, meet 75% of the water needs within the service area, while imported water from the Metropolitan Water District of Southern California meets the remaining 25% of demand.

Through the implementation of the integrated water management strategy within IEUA's service area, available water supplies will exceed anticipated demand. Projected water supply mix needed to meet urban water use by source within the IEUA service area is shown in Figure ES-3, which summarizes the projected urban water supply by source within IEUA's service area. Urban water supplies within the service area are projected to increase to 393,746 AFY by 2035. The increase in supplies will come from a number of areas: groundwater production is expected to increase to approximately 195,000 AFY by 2035 (made up of the Chino Basin, including desalters, land other local groundwater basins); imported water is expected to increase to approximately 85,000 AFY by 2035; recycled water is expected to increase to approximately 83,000 AFY; and local surface water is not expected to change.



Over the last ten-years, significant investments in local supply facilities has helped reduce dependence on imported water and to achieve the other program goals. These include capital expenditures of about $110 million dollars for recycled water projects, $50 million dollars for improvements of recharge basins, $150 million for Desalters I and II, and $ 27.5 million for the MWD recharge and extraction of stored imported water for the Dry Year Yield Program. Together, almost $350 million has been spent to enhance local water supplies.

Water Reliability

The available water supplies and water needs for IEUA's service area were analyzed to assess the region's ability to meet demands for three scenarios: a normal water year, single dry year and multiple dry years. Key assumptions included:

- Reliance on assurances provided by the Metropolitan Water District of Southern California in its 2010 Regional Urban Water Management Plan that it could meet 100% of projected supplemental full service water supply demands through 2035;

- Implementation of the Chino Basin Dry Year Yield Program consistent with the contractual shift obligations of the participating agencies of up to 33,000 acre-feet in a twelve month period; and

- A 10% conservation rate is achieved during drought scenarios.

The conclusion of the 2010 UWMP is that the retail agencies within IEUA's service area will be able to meet 100% of their demand under every scenario.

Other Water Planning Issues

Water Use Efficiency

In response to changing legislation, IEUA and its member agencies developed a Water Use Efficiency Business Plan (Plan) that outline the strategies and programs the region plans to implement over the next twenty-five years. The strategies and programs included in this Plan are designed to meet the compliance requirements of the following:

- California Urban Water Conservation Council's Best Management Practices;
- Assembly Bill 1420-Implementation of Demand Management Measures;
- Senate Bill X 7-7-Governor's call for 20% per capita water use reduction by 2020; and
- Future conservation legislation and regulation.

IEUA, as an urban wholesale water supplier, is not required to develop a baseline or set reduction targets to achieve a 20% reduction in gallons per capita day by 2020 as written under SB X 7-7. However, as the statute does require urban retail water suppliers to comply, IEUA takes the position of preparing a regional approach establishing a baseline and setting targets based on regional demands and in support of its eight retail member agencies that must comply. All member agencies within IEUA's service area have agreed to the formation of a regional alliance, and will continue to cooperatively participate in developing programs and meeting water conservation goals.

IEUA and its member agencies devised a strategy to meet all compliance requirements in the most cost-effective manner feasible.

Water Quality

Protection and enhancement of water quality is a priority within IEUA's service area. Overall, water quality is excellent but there are isolated zones of poorer quality groundwater that require some water sources be blended or treated to meet drinking water quality standards. Agencies within IEUA's service area have developed proactive programs to identify and treat poorer quality water to ensure the continued reliability of the local water supplies.

Water Shortage Contingency Plans

Planning for water shortages and catastrophic interruptions are also a priority within IEUA's service area. Regional coordination, infrastructure connections, local ordinances and mutual aid programs have been developed to minimize the potential for interruption of water supplies. IEUA and its member agencies also developed a Drought Allocation Plan in response to potential future imported water reliability concerns.